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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/590,899 | 01/04/2007 | Takayuki Fukumatsu | 1752-0186PUS1 | 4372 |
| 2292 7590 03/23/2009 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747 | | | | |
| EXAMINER GARRETT, DAWN L | | | | |
| ART UNIT | | PAPER NUMBER | | |
| 1794 | | | | |
| NOTIFICATION DATE | | DELIVERY MODE | | |
| 03/23/2009 | | ELECTRONIC | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/590,899

Applicant(s)

FUKUMATSU ET AL.

Examiner

Dawn Garrett

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date 1/4/07
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

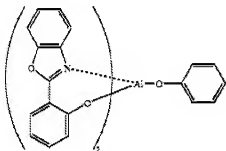
1. This application is a 371 of PCT/JP05/03764, 3/4/2005.

Claim Rejections - 35 USC § 103

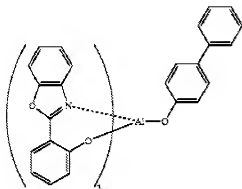
2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ise et al. (US 2004/0124769 A1). Ise et al. discloses an organic electroluminescent device comprising a light emitting layer comprising at least one metal complex and at least one phosphorescence emitting guest material (see abstract). General metal complex formulas H-5 and H-6 are taught on page 3. More specific examples of the metal complex include the following, which correspond to instant formula I (see par. 96):

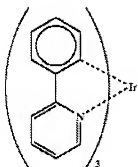


(see page 15)



(see page 15)

The phosphorescent emitting guest material included in the light emitting layer may comprise a transition metal complex comprising iridium, platinum, thenium or ruthenium as the metal center (see par. 97-98). Ise et al. exemplifies tri(2-phenylpyridine)iridium complex, "Ir(ppy)₃", as a phosphorescent emitter for the light emitting layer (see page 41, Comparative Example 1 and Example 2)

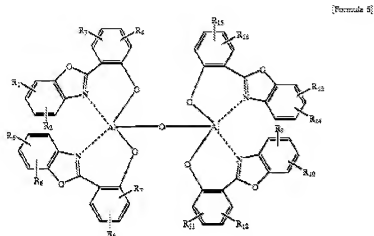


The light emitting device further comprises a hole transporting layer and electron transporting layer (see par. 151).

Ise et al. teaches preferably no hole-blocking layer is provided between the electron transporting layer and the light emitting layer (see par. 147).

Although Ise et al. does not *exemplify* a device comprising aluminum complexes according to instant formula I combined with a metal complex guest emitter in a light emitting layer, it would have been obvious to one of ordinary skill in the art at the time of the invention to have selected the disclosed aluminum complexes shown on page 15 as host material and a transition metal complex for a light emitting layer with a predictable result, because Ise et al. clearly teaches these materials are desirable to be combined to form a light emitting layer for a device.

4. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ise et al. (US 2004/0124769 A1) in view of Takahashi et al. (US 6,048,631). Ise et al. is relied upon as set forth above for the rejection of claim 1. Ise et al. exemplifies tri(2-phenylpyridine)iridium complex, "Ir(ppy)₃", as a phosphorescent guest emitter for the light emitting layer (see page 41, Comparative Example 1 and Example 2). Ise et al. teaches at least one metal complex as host material for a light emitting layer of a light emitting device. General metal complex formulas H-5 and H-6 are taught on page 3. Ise et al. teaches specific aluminum complexes on page 15 showing ligand components corresponding to ligands shown in instant formula III; however, Ise et al. does not *exemplify* an aluminum metal complex identical to instant formula III. Takahashi et al. teaches, in analogous art, an aluminum metal complex for a light emitting layer according to the following:



It would have been obvious to one of ordinary skill in the art at the time of the invention to have selected an aluminum metal complex taught by Takahashi et al. as the metal complex for the Ise et al. device light emitting layer, because one would expect a device comprising an aluminum complex with ligands the same as ligands specifically taught by Ise et al. to result in a well-performing device with a predictable result.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is (571) 272-1523. The examiner can normally be reached Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dawn Garrett/
Primary Examiner, Art Unit 1794